

Title (en)  
CYLINDRICAL SECONDARY BATTERY

Title (de)  
ZYLINDRISCHE SEKUNDÄRBATTERIE

Title (fr)  
BATTERIE SECONDAIRE CYLINDRIQUE

Publication  
**EP 4362177 A2 20240501 (EN)**

Application  
**EP 23201352 A 20231003**

Priority  
KR 20220126041 A 20221004

Abstract (en)  
A cylindrical secondary battery includes: an electrode assembly including a first electrode plate, a separator, and a second electrode plate; a case in which the electrode assembly is accommodated, and which includes a lower end and is electrically connected to the second electrode plate; a first current collector plate which is between an upper surface of the electrode assembly and the case and is electrically connected to the first electrode plate; a terminal which penetrates an upper surface of the case and includes a lower end electrically and mechanically coupled to an upper surface of the first current collector plate; and a cap plate which seals the lower end of the case, and the terminal includes a welding groove having a depth downward from an upper surface of the terminal.

IPC 8 full level  
**H01M 50/107** (2021.01); **H01M 50/152** (2021.01); **H01M 50/167** (2021.01); **H01M 50/179** (2021.01); **H01M 50/474** (2021.01);  
**H01M 50/536** (2021.01); **H01M 50/538** (2021.01); **H01M 50/559** (2021.01); **H01M 50/566** (2021.01)

CPC (source: CN EP KR US)  
**H01M 50/107** (2021.01 - EP KR US); **H01M 50/152** (2021.01 - CN EP KR US); **H01M 50/167** (2021.01 - EP); **H01M 50/179** (2021.01 - EP US);  
**H01M 50/186** (2021.01 - KR); **H01M 50/188** (2021.01 - US); **H01M 50/3425** (2021.01 - EP US); **H01M 50/474** (2021.01 - EP);  
**H01M 50/528** (2021.01 - CN US); **H01M 50/533** (2021.01 - US); **H01M 50/536** (2021.01 - EP); **H01M 50/538** (2021.01 - EP KR);  
**H01M 50/545** (2021.01 - KR); **H01M 50/559** (2021.01 - CN EP KR US); **H01M 50/566** (2021.01 - EP); **H01M 50/59** (2021.01 - KR);  
**Y02E 60/10** (2013.01 - EP KR)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4362177 A2 20240501**; **EP 4362177 A3 20240515**; CN 117855711 A 20240409; KR 102619896 B1 20240102; KR 20240047332 A 20240412;  
US 2024113369 A1 20240404

DOCDB simple family (application)  
**EP 23201352 A 20231003**; CN 202311277447 A 20230928; KR 20220126041 A 20221004; KR 20230192238 A 20231227;  
US 202318457624 A 20230829